mediately under or overlying them have been seen. There is little doubt, however, that they occupy either the summit of the Silurian or the base of the Devonian limestones. All the evidence that we have on the point has not as yet been perfectly elaborated, but it consists in the general horizontality of the beds wherever seen throughout the whole area, and in the existence of limestones holding fossils on Lake Manitoba, twelve miles distant in a south-westerly direction, and of limestones holding fossils on Lake St. Martin, eleven miles distant in a south-easterly direction. Also reference might be made to the above-mentioned bore on Vermilion River, where the gypsum was at the base of a bed of Devonian limestone one hundred and thirty feet in thick-Thus these deposits are practically of about the age ness. of the Onondaga Formation' of New York and Western Ontario, in which rocks plaster-quarries have been worked for many years. This Formation also contains the great salt deposits of Ontario, and it is a significant fact, that a short distance to the west of the area under consideration. around the shores of lakes Manitoba and Winnipegosis, many brine springs are known to occur. In the State of Michigan, many of the plaster-quarries are also in rocks of In Nova Scotia, the gypsum deposits about the same age. are of lower Carboniferous age, and in Iowa they are stated to belong to a still higher horizon.

The general hilly and irregular character of the surface underlain by the plaster beds, and the fact that isolated hills of gypsum rise above the surface of the otherwise level plain, make it appear probable that the deposits occur as lenticular masses in the beds of limestone which seem to compose the general floor of this whole area, though in most places the limestone is covered either by a mass of glacial till, or by the alluvial deposits laid down on the bottom of the ancient Lake Agassiz. The gypsum also resembles the limestone in being clearly stratified horizontally or at a very low angle. Besides this some of the limestone of Northern Manitoba contains a large amount of sulphur scattered throughout its mass in the